4-30-93

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 30 1993

MEMORANDUM: WORKER EXPOSURE DURING TREATMENT OF CHICORY ROOTS WITH VINCLOZOLIN (RONILAN DF, WP, FL)

TO: Susan Lewis, Acting Branch Chief
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Please find the OREB Review of .....

DP Barcode #: D182614, D182615, D182617

Chemical #: 113201

Company Name: BASF Corporation, Agricultural Chemicals

EPA Reg. Nos.: 7969-53, 7969-62, 7969-85

Date Received: 09/25/92 Action Code: 321

Reviewing Time: 1 day

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1. INTRODUCTION

BASF Corporation has submitted a request for a Section 3 registration for the use of vinclozolin (Ronilan DF, WP and FL, EPA Reg. Nos. 7969-53, 7969-62, 7969-85) on chicory roots grown in the US. The cover letter, (Rodney Akers, BASF, 9/3/92, to Susan Lewis, EPA) claims that there is a Section 24(c) registration for Ronilan use on chicory roots in California and that the proposed use is on a minor crop. BASF is attempting to provide worker exposure data in order to extend the current import tolerance of Belgian endive tops to include the domestically produced crop. Ronilan is a TOX II chemical and a developmental toxicant (memo D. Anderson, TB1, 3/9/90). This memo reviews the data submitted by the registrant.

2.0 DETAILED CONSIDERATIONS

OCCUPATIONAL AND RESIDENTIAL EXPOSURE

2.1 Background

Ronilan (vinclozolin) is a contact fungicide supplied as a wettable powder (WP), dry flowable (DF) and flowable (FL) formulation containing 50% of the active ingredient, 3-(3,5-dichlorophenyl)-5-ethynyl-5-methyl-2,4-oxazolidinedione and 50% inerts. The fungicide is used in the US for control of botrytis and sclerotinia (gray and white molds) in a small number of food and non-food (lawn and ornamental) crops. Sites for Ronilan use in the US are: head and leaf lettuce, onions (dry bulb), raspberries, stonefruits (includes apricots, cherries, nectarines, peaches, and plums/prunes), and strawberries (personal communication, Julie Fairfax to Shanaz Bacchus, Vivian Prunier, 4/8/93). Section 18 emergency requests for the use of this fungicide on snapbeans in WA, OR, PA and NY were granted in May, 1992.

2.2 Proposed Use

BASF has provided a description of the activities involved in the treatment of chicory roots. Belgian endive plants are grown outdoors and harvested from late September through mid-November. The tops are removed and discarded and the roots, called chicory roots, are treated with Ronilan and placed in cold storage until needed. As endive tops are needed, the roots are removed from cold storage and placed in forcing trays. These are put in dark rooms where the temperature and humidity are controlled to force the roots to produce new tops. The new tops are harvested and sold. According to the registrant, a second application of Ronilan is never used after the roots are placed in forcing trays.

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2.3. Worker Exposure

The registrant proposed that approximately 275 liters of a 0.036% solution of Ronilan® DF (50% vinclozolin ai) is sprayed on 400 kg chicory roots on a conveyor belt. Workers preparing the solution wear gloves and a respirator. The registrant claims that people sorting and handling the roots on the trimline are removed from the treatment area before application of Ronilan and that they do not contact the treated roots.

The registrant did not provide an estimate of the exposure to the mixer/loader during these operations, nor to handlers who force the roots. Neither is any mention made of whether the plants grown outdoors are treated with Ronilan prior to the harvest. This is especially noticeable since the label includes recommendations for personal protective clothing and equipment for applicators using airblast equipment.

3. RECOMMENDATIONS

While the registrant provides a description of the process by which chicory roots are treated, no estimates of worker exposure are provided. OREB requires a detailed analysis of the worker exposure which is likely to result from this proposed use. More information of the label-recommended airblast applications to belgian endive plants is also required before the worker exposure resulting from the treatment of chicory roots with Ronilan can be evaluated.

cc:

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Vivian Prunier	SRRD
Mark Dow	OREB/HED (FYI)
Vinclozolin File	
Correspondence File	
Circulation	